

Application No.: 09/14,464  
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### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### Listing of Claims:

Claims 1-30 (cancelled)

Claim 31 (currently amended): An isolated polynucleotide comprising:

- (a) a nucleotide sequence encoding [[an]]a lysyl-tRNA synthetase, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:10 have at least 80% identity based on the Clustal alignment method, or
- (b) a full-length complement of the nucleotide sequence of (a).

Claim 32 (previously presented): The polynucleotide of claim 31, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:10 have 85% identity based on the Clustal alignment method.

Claim 33 (previously presented): The polynucleotide of claim 31, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:10 have 90% identity based on the Clustal alignment method.

Claim 34 (previously presented): The polynucleotide of claim 31, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:10 have 95% identity based on the Clustal alignment method.

Claim 35 (previously presented): The polynucleotide of claim 31 comprising the nucleotide sequence of SEQ ID NO:9.

Claim 36 (previously presented): The polynucleotide of claim 31, wherein the synthetase comprises the amino acid sequence of SEQ ID NO:10.

Claim 37 (currently amended): A chimeric gene comprising [[the]]a polynucleotide of claim 31 operably linked to a regulatory sequence.

Claim 38 (currently amended): A vector comprising [[the]]a polynucleotide of claim 31.

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Claim 39 (currently amended): A method for transforming a cell comprising transforming a cell with ~~[[the]]~~a polynucleotide of claim 31.

Claim 40 (currently amended): A cell comprising ~~[[the]]~~a chimeric gene of claim 37.

Claim 41 (currently amended): A method for producing a plant comprising transforming a plant cell with ~~[[the]]~~a chimeric gene of claim ~~[[31]]~~37 and regenerating a plant from the transformed plant cell.

Claim 42 (currently amended): A plant comprising ~~[[the]]~~a chimeric gene of claim 37.

Claim 43 (currently amended): A seed comprising ~~[[the]]~~a chimeric gene of claim 37.

Claim 44 (withdrawn): An isolated polynucleotide comprising:  
(a) a nucleotide sequence encoding an lysyl-tRNA synthetase, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:16 have at least 90% identity based on the Clustal alignment method, or  
(b) the complement of the nucleotide sequence.

Claim 45 (withdrawn): The polynucleotide of claim 44, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:16 have 95% identity based on the Clustal alignment method.

Claim 46 (withdrawn): The polynucleotide of claim 44 comprising the nucleotide sequence of SEQ ID NO:15.

Claim 47 (withdrawn): The polynucleotide of claim 44, wherein the synthetase comprises the amino acid sequence of SEQ ID NO:16.

Claim 48 (withdrawn): A chimeric gene comprising the polynucleotide of claim 44 operably linked to a regulatory sequence.

Claim 49 (withdrawn): A vector comprising the polynucleotide of claim 44.

Claim 50 (withdrawn): A method for transforming a cell comprising transforming a cell with the polynucleotide of claim 44.

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Claim 51 (withdrawn): A cell comprising the chimeric gene of claim 48.

Claim 52 (withdrawn): A method for producing a plant comprising transforming a plant cell with the chimeric gene of claim 44 and regenerating a plant from the transformed plant cell.

Claim 53 (withdrawn): A plant comprising the chimeric gene of claim 48.

Claim 54 (withdrawn): A seed comprising the chimeric gene of claim 48.

Claim 55 (withdrawn): An isolated polynucleotide comprising:

- (a) a nucleotide sequence encoding an lysyl-tRNA synthetase, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:12 have at least 85% identity based on the Clustal alignment method, or
- (b) the complement of the nucleotide sequence.

Claim 56 (withdrawn): The polynucleotide of claim 55, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:12 have 90% identity based on the Clustal alignment method.

Claim 57 (withdrawn): The polynucleotide of claim 55, wherein the amino acid sequence of the synthetase and the amino acid sequence of SEQ ID NO:12 have 95% identity based on the Clustal alignment method.

Claim 58 (withdrawn): The polynucleotide of claim 55 comprising the nucleotide sequence of SEQ ID NO:11.

Claim 59 (withdrawn): The polynucleotide of claim 55, wherein the synthetase comprises the amino acid sequence of SEQ ID NO:12.

Claim 60 (withdrawn): A chimeric gene comprising the polynucleotide of claim 55 operably linked to a regulatory sequence.

Claim 61 (withdrawn): A vector comprising the polynucleotide of claim 55.

Claim 62 (withdrawn): A method for transforming a cell comprising transforming a cell with the polynucleotide of claim 55.

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Claim 63 (withdrawn): A cell comprising the chimeric gene of claim 60.

Claim 64 (withdrawn): A method for producing a plant comprising transforming a plant cell with the chimeric gene of claim 55 and regenerating a plant from the transformed plant cell.

Claim 65 (withdrawn): A plant comprising the chimeric gene of claim 60.

Claim 66 (withdrawn): A seed comprising the chimeric gene of claim 60.